



SAFETY DATA SHEET

HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

PRODUCT IDENTIFICATION

Company Product Name:

HL-11902

Other/Generic Names:

Hyper-Logic - Chemicals - Anti-Scalant-Flocon 260-1.0
Gallon Bottle

Product Use and Restrictions on Use

Reverse osmosis dispersant/antiscalant

Supplier:

Hydrologic Purification Systems
370 Encinal Street, Suite 150
Santa Cruz, CA 95060

For More Information Call:

(Monday-Friday, 9:00am-5:00pm)

(888) 426-5644

For Emergency Call:

For Chemical Emergency, Spill Leak Fire Exposure or
Accident - Call CHEMTREC Day or Night DOMESTIC
NORTH AMERICA 800-424-9300 INTERNATIONAL,
CALL 703-527-3887 (collect calls accepted)

HAZARDS IDENTIFICATION

Potential Health Effects:

INHALATION:

May cause irritation to the respiratory system.

INGESTION:

May cause discomfort if swallowed. May cause stomach pain
or vomiting.

SKIN CONTACT:

Non Irritant. Not a Skin Sensitizer.

EYE CONTACT:

Irritating to eyes.

HEALTH WARNING:

Irritating to eyes.

ROUTE OF ENTRY:

Skin and/or eye contact.

TARGET ORGANS:

Eyes, Skin.

COMPOSITION/INFORMATION ON INGREDIENT

<u>Ingredient Name</u>	<u>EC No.</u>	<u>CAS Number</u>	<u>Weight %</u>
Phosphonic Acid Derivative	No data	No data	2-10%
Polycarboxylic Acid	No data	No data	10-30%
Polycarboxylic Acid	No data	No data	30-60%



SAFETY DATA SHEET

HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

COMMENTS: Mixture of organic acids. The specific chemical identity will be made available to health professionals in accordance with 29 CFR 1910.1200 (1) (2) (3) (4). This Material Safety Data Sheet provides information for employee training and hazard identification. New Jersey Trade Secret Number: BL-5109-P. HMIRC EXEMPTION REGISTRATION NUMBER 7398. FILED 13th August 2008.

FIRST AID MEASURES

SKIN:

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Contact physician if irritation continues.

EYES:

Important! Immediately rinse with water for at least 15 minutes. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Contact physician if irritation persists.

INHALATION:

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

INGESTION:

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention.

FIRE FIGHTING MEASURES

Extinguishing Media: Fire can be extinguished using: Dry chemicals, sand, dolomite etc. Carbon dioxide (CO₂). Foam. Water spray, fog or mist.

Special Fire Fighting Procedures: Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

Unusual Fire & Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn.

Specific Hazards: Fire creates: Toxic gases/vapors/fumes of Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Nitrogen. Phosphorus. Sulphur. The product is non-combustible. If heated, irritating vapors may be formed.

Protective Measures in Fire: Leave danger zone immediately. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SAFETY DATA SHEET HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

ACCIDENTAL RELEASE MEASURES

Personal Precautions: Follow precautions for safe handling described in this safety data sheet. Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental Precautions: Avoid release to the environment. To prevent release, place container with damaged side up.

Spill Clean Up Methods: Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

HANDLING AND STORAGE

Handling: Avoid spilling, skin and eye contact. Observe good industrial hygiene practices.

Storage: Do NOT use container made of: Carbon steel. Store separated from: Alkalies. Reducing Agents. Keep containers tightly closed. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Store at moderate temperatures in dry, well ventilated area. Protect from light, including direct sunrays.

Storage Class: Corrosive storage.

EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

No exposure limits noted for ingredient(s).

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.



SAFETY DATA SHEET

HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

HAND PROTECTION

Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Gloves should be replaced immediately if signs of degradation are observed. It has been found that gloves made from rubber, neoprene or PVC provides short-term splash protection.

EYE PROTECTION

Wear approved safety goggles. Use face shield in case of splash risk.

OTHER PROTECTION

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENE MEASURES

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

SKIN PROTECTION

Wear apron or protective clothing in case of contact.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Light (or pale) yellow liquid.
PHYSICAL STATE:	Liquid.
ODOR:	Slight odor.
RELATIVE DENSITY(water=1.0)	1.14 – 1.165 @ 20°C
BOILING POINT (°C) :	100 - 102
MELTING POINT (°C) :	<~ -5
SOLUBILITY IN WATER (weight %)	Miscible with water.
pH VALUE, CONC. SOLUTION:	<2
VAPOR PRESSURE:	17.5 mm Hg @ 20°C
PARTITION COEFFICIENT (N-OCTANOL/WATER):	<0
VISCOSITY:	9 – 15 cSt @ 25°C

STABILITY AND REACTIVITY

STABILITY: Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID: Reacts with alkalis and generates heat. Avoid excessive heat for prolonged periods of time.

MATERIALS TO AVOID: Strong alkalies

SAFETY DATA SHEET

HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Nitrogen, Phosphorus and Sulphur.

TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 – LD50: 2400 mg/kg (oral rat).

SKIN: Non Irritant Not a Skin Sensitizer

EYES: Irritating to eyes.

INHALATION: May cause irritation to the respiratory system.

INGESTION: May cause discomfort if swallowed. May cause stomach pain or vomiting.

HEALTH WARNINGS: Irritating to eyes.

ECOLOGICAL INFORMATION

Ecotoxicity: The following ecotoxicity data is available for AS-260.

Daphnia EC50 48h	>1000 mg/L
Fish LC50 96h	No data available.
Algae IC50 72h	>100 mg/L

Degradability: Not inherently biodegradable

DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

DISPOSAL METHODS

Absorb in vermiculite or dry sand, dispose in licensed hazardous waste.

TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(contains polycarboxylic acids and a phosphonic acid)
IDENTIFICATION NO.:	3265
DOT HAZARD CLASS:	8





SAFETY DATA SHEET

HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

U.S. DOT HAZARD LABEL:	Corrosive.
IMDG CLASS:	8
EMS:	F-A, S-B
UN NO. AIR:	3265
AIR PACK GR.:	III
TDG LABEL(S):	CORROSIVE
NA NO.:	UN 3265
DOT PACKING GROUP:	III
UN NO. SEA:	3265
IMDG PACK GR.:	III
MARINE POLLUTANT:	No.
AIR CLASS:	8
TDG CLASS:	8
DOT PACKING GROUP:	III

REGULATORY INFORMATION

INVENTORIES

Component	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
Phosphonic Acid Derivative	DSL	Yes	EINE CS					
Polycarboxylic Acid	DSL	Yes	EINE CS	N/A	N/A	N/A	N/A	N/A
Polycarboxylic Acid	DSL	Yes	EINE CS	N/A	N/A	N/A	N/A	N/A

Component	TSCA 12 (b) Export Notification
Phosphonic Acid Derivative	No
Polycarboxylic Acid	N/A

US FEDERAL REGULATIONS

Component	SARA 302 TPQ	CERCLA-RQ	SARA 313
Phosphonic Acid Derivative			No
Polycarboxylic Acid			No

SAFETY DATA SHEET
HL-11902

Issue Date: 01 Sept 2016

Revision Date: N/A

CLEAN AIR ACT

Component	CAA Accidental Release Prevention
Polycarboxylic Acid	No

Component	CAS	CA	FL	MA	MN	NJ	PA	RI
Phosphonic Acid Derivative		C	Yes	Yes	Yes	Yes	Yes	Yes
Polycarboxylic Acid		No	No	No	No	No	No	No
Polycarboxylic Acid		No	No	No	No	No	No	No

REGULATORY STATUS (US)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required. TSCA: The ingredients of this product are on the TSCA Inventory.

REGULATORY REFERENCES

29 CFR 1910.1010 Federal Regulations (OSHA Standard).

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM – WHIMIS

LABEL(S) FOR SUPPLY



Corrosive Material



Materials Causing Other Toxic Effects

CONTROLLED PRODUCT CLASSIFICATION

Canadian WHMIS Classification D2B E.

SAFETY DATA SHEET
HL-11902

Issue Date: 01 Sept 2016

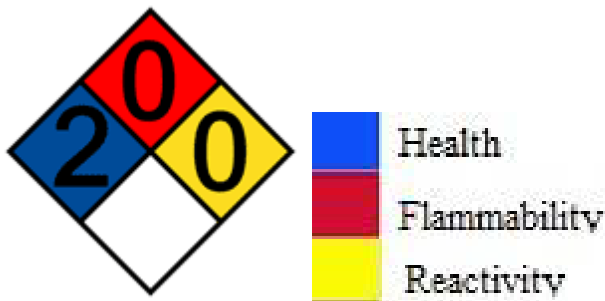
Revision Date: N/A

OTHER INFORMATION

HMIS RATING

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	D

Hazard rating: 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe



GENERAL INFORMATION

AS-260 is certified by NSF International for use as an antiscalant in reverse osmosis plants. The maximum approved dose level is 5 mg/l in the feedwater.

Classified as corrosive class 8 for transportation on the basis of its effect on mild steel.